UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virgina 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 99/14/2011 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA. VA 22314 EXAMINER

COLEMAN, RYAN L

ART UNIT PAPER NUMBER

1714

DATE MAILED: 09/14/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,967	09/25/2006	Nicolas Nadaud	293259US0PCT	6539

TITLE OF INVENTION: METHOD FOR CLEANING A SUBSTRATE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/14/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

IL PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE
Commissioner for Patents
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Alexandria, Virginia 22313-1450 or Fax (571)-273-2885

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APPLICATION NO.	FILING DATE			FIRST NAMED INVENTOR	ł.	ATTO	RNEY DOCKET NO.	CONFIRMATION NO.	
10/586,967	09/25/2006			Nicolas Nadaud		2	93259US0PCT	6539	
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☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			registered attorney or 2 registered patent att listed, no name will be	agent) and the nam orneys or agents. If printed.	es of u no nan	p to ie is 3			
3. ASSIGNEE NAME AN									
PLEASE NOTE: Unle recordation as set forth	ess an assignee is ident in 37 CFR 3.11. Com	ified below, a pletion of this	no assignee form is NO	data will appear on the T a substitute for filing ar	oatent. If an assign assignment.	ee is id	lentified below, the de	ocument has been filed for	
(A) NAME OF ASSIG				(B) RESIDENCE: (CIT					
Please check the appropria	ate assignee category or	categories (v	rill not be p	rinted on the patent):	Individual 🗆 Co	orporati	on or other private gro	up entity 🗖 Government	
4a. The following fee(s) a	re submitted:		4	b. Payment of Fee(s): (Ple	ase first reapply a	ıy prev	lously paid issue fee	shown above)	
	☐ Issue Fee ☐ A check is enclosed.								
□ Publication Fee (No small entity discount permitted) □ Advance Order - # of Copies □ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any									
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 Change in Entity State Applicant claims 	us (from status indicate SMALL ENTITY stati		R 1.27.	☐ b. Applicant is no lo	neer claiming SMA	LLEN	ITTY status. See 37 CF	R 1.27(g)(2).	
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UNITED STATES PATENT AND TRADEMARK OFFICE

NITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO 10/586.967 09/25/2006 Nicolas Nadaud 293259US0PCT 6539 22850 09/14/2011 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. COLEMAN, RYAN I. 1940 DUKE STREET ART UNIT

ALEXANDRIA, VA 22314

1714

DATE MAILED: 09/14/2011

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 642 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 642 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- The information on this form will be treated confidentially to the extent allowed under the Freedom
 of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of
 records may be disclosed to the Department of Justice to determine whether disclosure of these
 records is required by the Freedom of Information Act.
- A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2004 and 2006. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of	f Allo	wability
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Application No.	Applicant(s)	
10/586,967	NADAUD ET AL.	
Examiner	Art Unit	
BYAN COLEMAN	1714	

The MAILING DATE of this communication appears on the cover sheet with the correspondence address
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to applicant's claim amendments filed June 1, 2011.
- 2. An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- The allowed claim(s) is/are 1, 3-8, 10, and 21-23.
- 4.

 Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) Some* c) None of the:
 - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received:

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 5.

 A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) Thereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

RLC/

- 1. Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08).
- Paper No./Mail Date See Continuation Sheet
- 4. T Examiner's Comment Regarding Requirement for Deposit

of Biological Material

Rvan L. Coleman August 31, 2011

Patent Examiner, Art Unit 1714

- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413),
- Paper No./Mail Date _ 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. Other .

/Michael Kornakov/

Supervisory Patent Examiner, Art Unit 1714

Part of Paper No./Mail Date 20110831

Notice of Allowability

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Examiner's Amendment and Reasons for Allowance

 Applicant's amendments filed June 1, 2011 are acknowledged. Claims 2, 11-19, and 24-29 have been cancelled. Claims 1, 3-10, and 20-23 are pending.

Information Disclosure Statement

2. All of the references listed on the IDS filed 8/11/2011 have been marked as not considered by the examiner because each of those references was previously listed on an IDS filed 5/11/2011. Each of those references was marked as considered by the examiner on the IDS filed 5/11/2011.

EXAMINER'S AMENDMENT

- 3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- Authorization for this examiner's amendment was given in a telephone interview with Daniel Pereira on August 31, 2011.
- The application has been amended as follows:
- 6. Amend claim 1 as follows: A method for cleaning and coating a glass substrate, the method comprising:

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generating a plasma from a gas mixture comprising predominantly oxygen with at least one linear ion source, wherein the linear ion source generates a collimated beam of ions:

[[-]] subjecting at least one surface portion of a glass substrate optionally associated with a layer to said plasma to at least partly eliminate, by chemical reaction, the soiling matter possibly adsorbed or located on said surface portion—without removing material from the surface portion of the glass substrate; and

coating said at least one surface portion of the glass substrate subjected to the plasma by depositing at least one thin multilayer without breaking vacuum, wherein said at least one thin film multilayer ie for provides at least one of solar control, [[a]] low emissivity, electromagnetic shielding, heating functionality, hydrophobic properties, hydrophilic properties, photocatalytic properties, mirror properties, antireflection properties, electrochromic properties, electroluminescent properties, and photovoltaic properties.

Cancel claims 9 and 20.

Reasons for Allowance

8. The following is an examiner's statement of reasons for allowance: the reviewed prior art does not teach or suggest the subject matter recited by claim 1, the independent claim. The most relevant prior art to claim 1 is the combination of U.S. 2004/0020761 by Thomsen (Thomsen '761) in view of U.S. 2003/0064198 by Thomsen (Thomsen '198) in view of U.S. 2002/0012798 by Veerasamy that was used to reject

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claim 1 in the examiner's Non-Final Rejection dated 2/10/2011. The combination of Thomsen '761 in view of Thomsen '198 in view of Veerasamy fails to teach subjecting a glass substrate to plasma generated from a gas mixture comprising predominantly oxygen and then coating the glass substrate with a multilayer. The reviewed prior art fails to provide motivation to modify the combination of Thomsen '761 in view of Thomsen '198 in view of Veerasamy in order to arrive at the invention recited by claim 1.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN COLEMAN whose telephone number is (571)270-7376. The examiner can normally be reached on Monday-Friday, 9-5.
- 11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on (571)272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- Information regarding the status of an application may be obtained from the
 Patent Application Information Retrieval (PAIR) system. Status information for

Application/Control Number: 10/586,967 Page 5

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RLC/ Ryan L. Coleman Patent Examiner, Art Unit 1714 August 31, 2011 /Michael Kornakov/ Supervisory Patent Examiner, Art Unit 1714